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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,919	03/31/2004	Mark C. Boomer	101896-0241	2918
21125	7590	11/29/2005		
NUTTER MCCLENNEN & FISH LLP WORLD TRADE CENTER WEST 155 SEAPORT BOULEVARD BOSTON, MA 02210-2604			EXAMINER COMSTOCK, DAVID C	
			ART UNIT	PAPER NUMBER
			3733	

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Tata

<b>Office Action Summary</b>	<b>Application No.</b> 10/708,919	<b>Applicant(s)</b> BOOMER ET AL.	
	<b>Examiner</b> David Comstock	<b>Art Unit</b> 3733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 September 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,7-10,13-20,42,43 and 46-50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,9,10,13-20,42,43 and 46-50 is/are rejected.
- 7) ☐ Claim(s) 7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

The drawings filed 06 September 2005 are accepted.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 13-20, 42, 43, 46, 48 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Lai (5,509,328).

Lai discloses a device comprising a first elongate member 10 having a female connector with opposed arms 13 and a second elongate member 20 having a male connector 40 adapted to mate to the female connector (see Fig 2). The members are adjustably coupled to one another. A locking mechanism locks the elongate members in a fixed position relative to each other. The devices are angularly adjustable in a single plane. The opposed arms define a recess for receiving the male connector. The device includes a bore 14 extending through the opposed arms on the female connector and through the male connector, and a central mating element 51,52 extending through the bore for mating the male and female connectors together. The central mating element comprises a cylindrical member 51. The device rotates about this member

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when it is in a loosened state. The cylindrical member is fixedly coupled to a portion of the female connector, and the male connector is free to rotate about the cylindrical member when loose. The locking mechanism is effective to engage the cylindrical member to prevent movement of the male connector relative to the female connector when tightened. The locking mechanism comprises a slot 43 extending through the male connector such that the male connector is in the form of a clamp, and wherein the locking mechanism further comprises a threaded fastening element 44 adapted to engage the male connector to clamp the cylindrical member within the bore. The female connector and male connector rotate about a central axis extending substantially perpendicular to an axis of the first and second elongate members. The locking mechanism is adapted to extend into a connector along an axis that is substantially parallel to the plane of adjustability. The diameter of the first and second elongate member appears to be substantially the same. A terminal end of the second elongate member is at an angle to a longitudinal axis of the second elongate member.

Claims 46, 48 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Ulrich et al. (4,433,677).

Ulrich et al. disclose a device comprising elongate rods 1 that can be locked at an angle relative to each other by means of a locking mechanism 16, 20 at the ends 9 thereof (see Figs. 2-4). The end of one arm comprises a female connector 11 and the end of the other arm together with the screw 16 comprises the male connector received in the female connector. Thus, one arm is clamped between the other arm and the screw. The angular adjustability occurs in a single plane. The locking mechanism, e.g.

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the screw, extends along an axis that is perpendicular to the plane of adjustability. The terminal end 9 of each rod is positioned at an angle with respect to its own longitudinal axis, as at the outer curved surface extending at an angle about the outer diameter of the terminal end (see Fig. 2).

Claims 1, 2, 9, 13-16, 20, 42 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Yue (6,007,536).

Yue discloses a device comprising a rod 1 that can be locked at an angle with respect to a plate 2 by means of a locking mechanism 3,4 at the ends of the rod and plate (see Figs. 1A-1C). The device adjusts in a single plane. The plate includes a female connector having arms that receive the male connector (see Fig. 1B). A bore extends through the male and female connector components to allow rotation about a cylindrical member attached to the female connector.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 47 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yue (6,007,536).

Yue discloses the claimed invention except for explicitly disclosing different diameters or an offset angle of 90 degrees. It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to form the device with differing diameters or with an offset angle of 90 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claims 47 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ulrich et al. (4,433,677).

Ulrich et al. disclose the claimed invention except for the diameters of the rods specifically being different and the angular position of the end of the rods being about 90 degrees. It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the device with rods having any of numerous ranges of diameters and to provide an angular end position of about 90 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

#### ***Allowable Subject Matter***

Claims 7 and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Response to Arguments***

Applicant's arguments filed 06 September 2005 have been fully considered but they are not persuasive with respect to the claims that remain rejected above.

With regard to Ulrich et al., it is noted that independent claim 46 does not recite the opposed arms of the female connector (as now set forth in amended independent claim 1), nor does it recite the relative orientation of the angular adjustment plane and the locking member axis (as now set forth in amended independent claims 42 and 43).

In response to applicant's argument that Yue does not disclose a "spinal fixation device," a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is at least capable of performing the intended use, then it meets the claim. Furthermore, as set forth in the rejection, Yue discloses a female connector, i.e. the pair of opposing arms that form a receiving opening, and a male connector, i.e. the arcuate gear portion 3, received within the female connector (See the top portion of Fig. 1B).

### ***Conclusion***

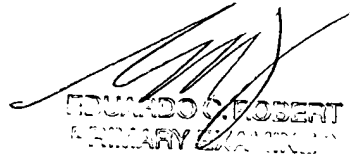
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Comstock whose telephone number is (571) 272-4710. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



D. Comstock  
25 November 2005



EDUARDO O. ROBERT  
PRIMARY EXAMINER